

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter I of the Patent Cooperation Treaty)

(PCT Rule 44bis)

Applicant's or agent's file reference GPSBP6269666	FOR FURTHER ACTION		See item 4 below
International application No. PCT/GB2004/005184	International filing date (<i>day/month/year</i>) 10 December 2004 (10.12.2004)	Priority date (<i>day/month/year</i>) 10 December 2003 (10.12.2003)	
International Patent Classification (8th edition unless older edition indicated) See relevant information in Form PCT/ISA/237			
Applicant EUROFLOW (UK) LIMITED			

1. This international preliminary report on patentability (Chapter I) is issued by the International Bureau on behalf of the International Searching Authority under Rule 44 *bis*.1(a).
2. This REPORT consists of a total of 6 sheets, including this cover sheet.

In the attached sheets, any reference to the written opinion of the International Searching Authority should be read as a reference to the international preliminary report on patentability (Chapter I) instead.
3. This report contains indications relating to the following items:

<input checked="" type="checkbox"/> Box No. I	Basis of the report
<input type="checkbox"/> Box No. II	Priority
<input type="checkbox"/> Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
<input type="checkbox"/> Box No. IV	Lack of unity of invention
<input checked="" type="checkbox"/> Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
<input checked="" type="checkbox"/> Box No. VI	Certain documents cited
<input type="checkbox"/> Box No. VII	Certain defects in the international application
<input type="checkbox"/> Box No. VIII	Certain observations on the international application
4. The International Bureau will communicate this report to designated Offices in accordance with Rules 44bis.3(c) and 93bis.1 but not, except where the applicant makes an express request under Article 23(2), before the expiration of 30 months from the priority date (Rule 44bis .2).

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Facsimile No. +41 22 740 14 35	Date of issuance of this report 12 June 2006 (12.06.2006)
	Authorized officer Nora Lindner Telephone No. +41 22 338 89 65

PATENT COOPERATION TREATY

REC'D 19 MAY 2005

From the
INTERNATIONAL SEARCHING AUTHORITY

WIPO PCT

PCT

To:

see form PCT/ISA/220

23/6 PTOL

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1)

Date of mailing
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference
see form PCT/ISA/220

FOR FURTHER ACTION
See paragraph 2 below

International application No.
PCT/GB2004/005184

International filing date (day/month/year)
10.12.2004

Priority date (day/month/year)
10.12.2003

International Patent Classification (IPC) or both national classification and IPC
B01D15/08, G01N30/60

Applicant
EUROFLOW (UK) LIMITED

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☒ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA:



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**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/GB2004/005184

Box No. I Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
 - ☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material:
 - ☐ a sequence listing
 - ☐ table(s) related to the sequence listing
 - b. format of material:
 - ☐ in written format
 - ☐ in computer readable form
 - c. time of filing/furnishing:
 - ☐ contained in the international application as filed.
 - ☐ filed together with the international application in computer readable form.
 - ☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/GB2004/005184

Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	1-9
	No: Claims	10,11
Inventive step (IS)	Yes: Claims	1-9
	No: Claims	10,11
Industrial applicability (IA)	Yes: Claims	1-11
	No: Claims	

2. Citations and explanations

see separate sheet

Box No. VI Certain documents cited

1. Certain published documents (Rules 43bis.1 and 70.10)

and /or

2. Non-written disclosures (Rules 43bis.1 and 70.9)

see form 210

Re Item V.

1. Reference is made to the following documents:
D1: WO 97/32207 A (VARIAN ASSOCIATES, INC) 4 September 1997 (1997-09-04)
D2 : WO 00/00259 A (MILLIPORE CORPORATION; FRAZER, NEIL, FRANCIS) 6
January 2000 (2000-01-06)
D3: US-B1-6 736 974 (MANN HERBERT) 18 May 2004 (2004-05-18)
2. Technical field:
The application is related to the field of columns for industrial chromatography comprising a plunger for adjustability of bed height and bed compression, in particular to a method and device for maintenance of column end structures.
3. Problem:
This columns require periodic maintenance and inspection within the column. Lower and upper end structures are withdrawn relative to the column tube, which involves alignment and lifting structures which cause significant obstructions around the tube.
4. Solution:
Method and device wherein the piston structure is advanced through the column tube to expose it at an open end.
5. INDEPENDENT CLAIM 1

Document D3, cited in the application on page 4, is considered to represent the most relevant state of the art for the claimed method.

D3 discloses a method wherein upper and lower end structures are unbolted and the piston is lifted out of the top of the column to gain access to it.

From this, the subject-matter of independent claim 1 differs in that the piston structure is advanced through the column tube to expose it at an open end.

The subject-matter of claim 1 is therefore novel (Article 33(2) PCT)

The proposed in claim 1 of the present application is considered as involving an inventive step (Article 33(3) PCT) because no hint could be found in the available prior art to push the piston through the column and perform maintenance of lower and upper end structure on a common end of the column assembly as disclosed in present claim 1.

6. Claims 2-9 are dependent on claim 1 and as such also meet the requirements of the PCT with respect to novelty and inventive step.

7. **INDEPENDENT CLAIM 10**

D1 discloses a device for industrial chromatography which comprises all structural features of present claim 10, in particular a rod (24) which is longer than the column tube (35), see figures 1,2,6 and the corresponding description. The apparatus of D1 is therefore suitable for a method according to claim 1 and as a consequence the subject-matter of claim 10 is not new (Article 33(2) PCT).

8. Dependent claim 11 add the features of a hydraulic actuation which is also derivable from D1, see page 4, line 22.